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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,098	02/26/2004	Leonid Hanin	116686.00271	2498
27557 7590 04/19/2007 BLANK ROME LLP 600 NEW HAMPSHIRE AVENUE, N.W. WASHINGTON, DC 20037			EXAMINER CIRIC, LJILJANA V	
			ART UNIT	PAPER NUMBER
			3744	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/19/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/786,098

Applicant(s)

HANIN ET AL.

Examiner

Ljiljana (Lil) V. Ciric

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20040609.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election of the Invention of Group II, readable on claims 13 through 20, in the reply filed on January 29, 2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Because applicant has cancelled all of the claims readable on the non-elected invention of Group I, no claims remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group I. Election was made **without** proper traverse in the reply filed on January 29, 2007.

### *Specification*

3. The disclosure is objected to because of the following informalities: "intermettalic alloys" [page 18, line 5] is misspelled and should be replaced with "intermetallic alloys".

Appropriate correction is required.

### *Claim Objections*

4. Claims 14, 15, and, 19 is objected to because of the following informalities: not all of the variables appearing in the equations recited in claims 14 and 15 have been defined in the claims; and, "intermettalic (claim 19, line 3) is misspelled and should be replaced with "intermetallic". Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 13 through 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "approximately" in claim 13 is a relative term which renders the claim and all claims depending therefrom indefinite. The term "approximately" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Thus, as used to qualify the shape of the first and second sides of the fin, this term renders the same indeterminate and the claims indefinite.

Also, with regard to claim 19 as written, it is not clear which materials are encompassed by the undefined term "tool alloys", thus rendering the metes and bounds of protection sought by the claim indefinite.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. As best can be understood in view of the indefiniteness of the claims, claims 13, 17, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lupkas.

Lupkas [especially Figure 2] discloses a solid, homogeneous heat dissipating "fin" including a longitudinally extending base portion 34a, a first longitudinally extending approximately circular side 34b, and a second longitudinally extending approximately circular side 34c.

The reference thus reads on the claims.

9. Alternately and as best can be understood in view of the indefiniteness of the claims, claims 13, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Trunk et al.

Trunk et al. [especially Figures 4 through 6] discloses a homogeneous heat dissipating "fin" including a longitudinally extending base portion 14 or 16, and first and second longitudinally extending approximately circular sides 18.

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The reference thus reads on the claims.

10. Alternately for claims 13, 17, and 20, and as best can be understood in view of the indefiniteness of the claims, claims 13, 17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Asanuma et al.

Asanuma et al. [especially Figures 1 and 2] discloses a solid heat dissipating fin made of aluminum [see column 2, lines 15-19] and including a longitudinally extending base portion 2, first and second longitudinally extending approximately circular sides 3.

The reference thus reads on the claims.

11. Alternately for claims 13, 17, 19, and 20, and as best can be understood in view of the indefiniteness of the claims, claims 13, 16, 17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Dentini et al.

Dentini et al. [especially Figure 2] discloses a solid heat dissipating fin made of a polymer composite or matrix [see column 2, lines 28-31] and including a longitudinally extending base portion as well as first and second longitudinally extending approximately circular sides along surface 26 as shown in Figure 2.

The reference thus reads on the claims.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dentini et al.

As described in greater detail above, Dentini et al. discloses a solid heat dissipating fin essentially as claimed, but fails to disclose the particular spatial relationships of the elements of the fin as recited in

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claims 14 and 15 of the claims. Nevertheless, mere optimization of the shape and the relative sizes of various elements of a given inventive structure does not render the structure patentable and is instead an obvious matter of design choice. Thus, absent a showing of unexpected results, it would have been obvious to one skilled in the art at the time of invention to modify the fin structure of Dentini et al. in order to come up with various dimensional and shape optimizations thereof, including the ones recited in claims 14 and 15, in order to meet particular heat transfer requirements.


*Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ljiljana (Lil) V. Ciric whose telephone number is 571-272-4909. The examiner works a flexible work schedule but can normally be reached on most days during the work week between the hours of 10:30 a.m. and 6:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Ljiljana (Lil) V. Ciric

**LJILJANA CIRIC  
PRIMARY EXAMINER**